

IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1-67. (Canceled)

68. (New) A method for designing a MOS oscillator, comprising:

arranging a frequency dependent amplifier and a frequency dependent feedback device, such that the frequency dependent feedback device is in communication with an output and an input of the frequency dependent amplifier; and

designing an attenuating device to be in communication with the frequency dependent amplifier to attenuate flicker noise, wherein said attenuating device has a characteristic such that the fundamental frequency is from approximately ten times to twenty times a high pass bandwidth of a combination of the frequency dependent amplifier and the attenuating device.

69. (New) The method of claim 68, wherein said frequency dependent amplifier is arranged to amplify an input by a predetermined gain factor, wherein said frequency dependent feedback device is arranged to include a frequency dependent gain determining impedance in communication with the frequency dependent amplifier, and wherein a maximum gain of said frequency dependent amplifier occurs at the fundamental frequency.

70. (New) The method of claim 69, wherein the frequency dependent amplifier is designed to include,

a pair of cross-coupled MOS transistors, a drain of each of the pair of cross-coupled MOS transistors being in communication with a gate of the other of the pair of cross-coupled MOS transistors and to a corresponding terminal of said frequency dependent gain determining impedance;

a first current source having a first terminal in communication with a source of a first one of said pair of cross-coupled MOS transistors and to a first terminal of the attenuating device; and

a second current source having a first terminal in communication with a source of a second one of said pair of cross-coupled MOS transistors and to a second terminal of the attenuating device.

71. (New) The method of claim 69, wherein said frequency dependent gain determining impedance is designed to include,

at least one inductor in communication with the frequency dependent amplifier and a first terminal of a voltage source; and

at least one capacitor in communication with the frequency dependent amplifier and a second terminal of the voltage source.

72. (New) The method of claim 70, wherein the attenuating device is designed to include a capacitor.

73. (New) A method for designing an RF communication device, comprising:

designing an MOS oscillator, having a fundamental frequency, the MOS oscillator including a frequency dependent amplifier and a frequency dependent feedback device, wherein the frequency dependent feedback device is in communication with an output and an input of the frequency dependent amplifier; and

designing an attenuating device to be in communication with the frequency dependent amplifier to attenuate flicker noise signals having a frequency much less than the fundamental frequency.

74. (New) The method of claim 73, wherein said attenuating device has a characteristic such that the fundamental frequency is from approximately ten times to twenty times a high pass bandwidth of a combination of the frequency dependent amplifier and the attenuating device.

75. (New) The method of claim 73, wherein the RF communication device is designed to include an RF receiver and the oscillator is designed to include a local oscillator to demodulate a carrier frequency signal received by the RF receiver.

76. (New) The method of claim 73, wherein the frequency dependent amplifier is designed to amplify an input signal by a predetermined gain factor, and wherein the frequency dependent feedback device is designed to include a frequency dependent gain determining impedance in communication with the frequency dependent amplifier, wherein a maximum gain of the frequency dependent amplifier occurs at the fundamental frequency.

77. (New) The method of claim 76, wherein the frequency dependent amplifier is designed to include,

a pair of cross-coupled MOS transistors, a drain of each of the pair of cross-coupled MOS transistors being in communication with a gate of the other of the pair of cross-coupled MOS transistors and to a corresponding terminal of the frequency dependent gain determining impedance;

a first current source having a first terminal in communication with a source of a first one of the pair of cross-coupled MOS transistors and with a first terminal of the attenuating device; and

a second current source having a first terminal in communication with a source of a second one of said pair of cross-coupled MOS transistors and with a second terminal of the attenuating device.

78. (New) The method of claim 76, wherein the frequency dependent gain determining impedance is designed to include,

at least one inductor in communication with the amplifier and a first terminal of a voltage source; and

at least one capacitor in communication with the amplifier and a second terminal of the voltage source.

79. (New) The method of claim 76, wherein the attenuating device is designed to include a capacitor.

80. (New) The method of claim 73, wherein frequency dependent amplifier is designed to include,

a first pair of cross-coupled MOS transistors of a first conductivity type, a drain of each of the first pair of cross-coupled MOS transistors being in communication with a gate of the other of the first pair of cross-coupled MOS transistors and to a corresponding terminal of the frequency dependent gain determining impedance;

a first current source in communication with a source of one of the first pair of cross-coupled MOS transistors of the first conductivity type and with a first terminal of the attenuating device;

a second current source in communication with a source of a second one of the first pair of cross-coupled MOS transistors of the first conductivity type and with a second terminal of the attenuating device;

a second pair of cross-coupled MOS transistors of a second conductivity type wherein a drain of each of the second pair of cross-coupled MOS transistors is connected to a gate of the other of the second pair of cross-coupled MOS transistors and to one terminal of said frequency dependent gain determining impedance;

a third current source in communication with a source of one of the second pair of cross-coupled MOS transistors and with a first terminal of the second attenuating device; and

a fourth current source in communication with a source of the other of the second pair of cross-coupled MOS transistors of the second conductivity type and to a second terminal of the second attenuating device.

81. (New) The method of claim 73, wherein the attenuating device includes a first capacitor.